CHAPTER 7: FINDINGS AND RECOMMENDATIONS

General Findings

Test Development

In conducting analyses for the AB 1609 requirement, we reviewed all of the relevant standards published in *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 1999). These standards were developed by joint committees of the American Educational Research Association, the American Psychological Association, and the National Council for Measurement in Education. They are the most widely accepted standards for testing. A listing and discussion of each relevant standard was presented in the AB 1609 report (Wise, et al., May 2003). Results of our review of these standards led to the first general finding:

> **General Finding 1: The development of the CAHSEE meets all of the test standards for use as a graduation requirement.**

Standards-Based Instruction

The Impact of the CAHSEE on Instruction

> **General Finding 2. The CAHSEE requirement has been a major factor leading to dramatically increased coverage of the California Academic Content Standards at both the high school and middle school levels and to development or improvement of courses providing help for students who have difficulty mastering these standards.**

Chapter 3 of this report describes the profound impact that the CAHSEE requirement has had on standards-based instruction. At the high school level, coverage of the California Academic Content Standards assessed by the CAHSEE has increased steadily from 1999, when only about 20 percent of the schools reported covering at least three-quarters of the standards, to the current school year, in which more than 80 percent of the schools reported at least 75 percent coverage. Changes to instruction are also indicated by the number of new courses started in the past three years, the number of existing courses that have adopted new textbooks in this time period, and the increased alignment of these courses and texts to content standards. Alignment at the middle school has shown similar improvement.

An even more important indication of the impact of the CAHSEE requirement is the number of new remedial or supplemental courses, many specifically targeting students who do not initially pass the CAHSEE. Schools have always worked to help students who did not master important standards the first time around, but the CAHSEE has expanded these efforts very considerably. New programs also include courses designed specifically for English learners and special education students. Principal and teacher interviews suggest that the CAHSEE requirement was a major factor in driving schools to increase alignment of their courses to the California Academic Content Standards and to develop programs for students who were not mastering key standards.

Effectiveness of Instruction for the Class of 2004

General Finding 3. Available evidence indicates that many courses of initial instruction and remedial courses have only limited effectiveness in helping students master the required standards.

Chapter 4 of this report presents evidence for the effectiveness of standards-based instruction for the Class of 2004. The general conclusion from these analyses is that instruction throughout the state has not been effective for all students, particularly in mathematics. In half of the state's high schools, fewer than 50 percent of the Class of 2004 has passed the mathematics portion of the CAHSEE.

High school passing rates are closely related to the reported coverage of the CAHSEE standards in the high school curriculum. For ELA, 100 percent of schools in the survey where high levels of content coverage were implemented early (just subsequent to passage of the CAHSEE legislation) had passing rates of 75 percent or greater. In comparison, only 59 percent of schools that have not yet implemented high levels of coverage had ELA passing rates this high. For mathematics, the percentage of schools with high passing rates ranged from 100 percent for early implementers down to only 22 percent for schools that have not yet implemented high levels of alignment between curriculum and content standards.

Student Preparation

General Finding 4. Lack of prerequisite skills may prevent many students from receiving the benefits of courses that provide instruction in relevant content standards. Inadequate student motivation and lack of strong parental support may play a contributing role in limiting the effectiveness of these courses.

Survey and interview results indicated a major reason that courses were not more effective in helping students master the required standards was inadequate student preparation. Many students participating in both initial and remedial instruction did not have essential prerequisite skills. For supplemental and remedial courses, more than half the teachers reported that most of their students did not yet have prerequisite skills; among teachers of remedial courses targeting special education students, 72 percent gave this response.

A number of other reasons for the limited effectiveness of current instruction were explored in the survey and interviews. Low student attendance and motivation were frequently cited as contributing factors. Students do not always take advantage of remedial activities that are offered, particularly summer programs. Many of the interview respondents stated that the CAHSEE requirement has had some positive influence on student motivation.

We also investigated the possible impact of teacher qualifications, defined by their credentials and years of experience, and professional development programs for the teachers on the effectiveness of standards-based instruction. There was no clear evidence that teacher qualification was an important factor. Few schools made extensive use of teachers with emergency credentials, and the majority of courses targeting English learners or special education students were taught by teachers who were experienced with these populations.

There was some indication that the qualifications of mathematics teachers could be improved. Mathematics teachers had lower rates of participation in professional development targeted to teaching the standards, and as many as 25 percent of high school mathematics courses targeting special education students are being taught by teachers without appropriate credentials. In general, however, those who teach courses targeting English learners and special education students have considerable experience with these populations.

Year-4 Findings Based on Further Analyses of 2002-03 Administration Results

The following general findings are based on results from the analyses and activities summarized above and reported in detail in our Year-4 Annual Evaluation Report (Wise et al., September 2003).

General Finding 5. While precise comparisons are not possible, by the end of 10th grade, passing rates for students in the Class of 2005 were slightly lower than passing rates for students in the Class of 2004.

Overall, 67 percent of the students in the Class of 2005 passed the ELA test and 52 percent passed the mathematics test. Corresponding figures for the Class of 2004 at the end of 10th grade were 73 percent and 53 percent respectively. A key caveat is that more than a quarter of the students in the Class of 2004 had taken the CAHSEE at least twice by the end of 10th grade. This was not true for the Class of 2005, where very few students had taken the CAHSEE more than once. This finding was also consistent with results from the STAR assessment, which showed that the Class of 2005 performed at about the same level as the Class of 2004 on the 10th grade ELA assessment. Tenth graders in the Class of 2005 had slightly lower scores on the Algebra I assessment compared to the Class of 2004, although a higher proportion of students in the Class of 2005 took Algebra I in the 10th grade.

Prospects continue to look better for the Class of 2006. Performance of students in this class on the 2003 9th grade STAR assessment in ELA was significantly improved from performance levels attained by the classes of 2004 and 2005. Performance of the Class of 2006 as 9th graders was not significantly better then prior classes. However, more students in the Class of 2006 completed Algebra I in the 8th or 9th grade in comparison to earlier classes, and having completed Algebra is a very strong predictor of positive performance on the mathematics portion of the CAHSEE.

General Finding 6: Available evidence indicates that the CAHSEE has not led to any increase in dropout rates. In fact enrollment declines from 10th to 11th grade for the Class of 2004 were significantly lower than declines for prior high school classes.

One possible negative consequence of the CAHSEE requirement that the Legislature asked the evaluation to address is that students who have difficulty passing the CAHSEE might be more likely to drop out of school early and end up with lower levels of achievement than if they had stayed in school longer. Comparison of enrollment rate trends indicates that this is not happening. In fact, the decline in enrollment from the 10th to the 11th grade was

significantly less for the Class of 2004 than for prior classes. Thus, it is safe to conclude that the CAHSEE requirement has probably not yet led to any increase in early dropouts.

General Finding 7: More students in the Class of 2005 believed that the CAHSEE was important to them compared to Class of 2004 students when they were in the 10th grade. Slightly more said they did as well as they could on the exam. Expectations for graduation and post-high school plans were largely unchanged for the Class of 2005 in comparison to the Class of 2004.

Responses to survey questions at the end of the CAHSEE indicated that students in the Class of 2004 who had not yet passed believed that passing the CAHSEE was important and slightly more of them tried their best in comparison to responses from students taking the CAHSEE for the second time in 2002. Students in the Class of 2005 taking the CAHSEE for the first time were also more likely to believe passing the CAHSEE was important and to have done their best in comparison to students in the Class of 2004 taking the CAHSEE for the first time in 2002 as 10th graders.

General Finding 8: Schools are continuing efforts to cover the California Academic Content Standards in instruction and provide support for students who need additional help in mastering these standards. Many programs that were planned or only partially implemented a year ago have now been fully implemented.

The percentage of principals reporting that their school had conducted local workshops on CAHSEE content rose from 41 percent in 2002 to 62 percent in 2003. Principals reported that the Teacher Guides distributed by CDE were useful in these workshops. New CAHSEE study guides available for the Class of 2006 will provide additional support for workshop activities.

The percentage of principals reporting that more than 95 percent of their students received instruction in the math content standards rose from 22 percent to 33 percent while the percentage estimating that fewer than 75 percent received instruction in the content standards declined from 48 percent to 33 percent for mathematics and from 34 percent to 27 percent in ELA. Similar results were noted in estimates for English learners, minority, and economically disadvantaged students. Results for special education students were not directly comparable as the 2003 survey asked for separate estimates for students with more or less severe disabilities. Estimates of content coverage for students with less severe disabilities were higher, but more than half of the principals estimated that more than half of these students did not receive instruction that covered the California Academic Content Standards included on the CAHSEE.

Efforts to help high school students who had not passed the CAHSEE continued to increase. In 2002, 24 percent of the schools planned to implement remedial courses, 33 percent had partially implemented such courses, and only 10 percent had fully implemented the courses. One-third had no plan to increase remedial courses. In 2003, the corresponding results were only 20 percent with no plans to implement, 10 percent planning to implement, 37 with partial implementation, and 33 percent with full implementation of increased remediation (Table 4.8). Increases were also reported for individual or group tutoring (up

from 29 percent to 45 percent fully implemented), adopting the California Academic Content Standards (from 45% to 82%), altering the high school curriculum (16% to 26%) and working with feeder middle schools (from 5% to 18%). Perhaps as a result of these efforts, more teachers believed that students were prepared to pass the CAHSEE in the 10th grade (70% in 2003 versus 58% in 2002).

General Finding 9: Teacher and principal expectations for the impact of CAHSEE on students were largely unchanged from prior years.

Estimates of the impact on student motivation and parent involvement on retention and dropout rates and on instructional practices did not show any significant trends in comparison to similar estimates from prior years.

General Finding 10: Professional development in the teaching of the state's Academic Content Standards has not yet been extensive.

Teachers were asked to rate the quality of professional development that they received from local and from state sources. Twenty-six percent said they received no professional development from local sources and 44 percent said they received no professional development from state sources. Ratings of the quality of professional development received by the teachers were generally the same or lower in comparison to similar ratings in the 2002 survey. Fewer than half of the teachers rated the quality as good or excellent.

General Finding 11: There were no significant problems with local understanding of test administration procedures, but some issues remain with the provision of student data and the assignment of testing accommodations.

More test coordinators reported using the CAHSEE administration video provided by ETS to learn more about test administration procedures than in prior years, although nearly half still preferred the test-administration training workshop because it provided them with the occasion to ask questions. No significant test administration problems were observed.

Some issues with regard to scheduling students to take the test remained, including testing 10th grade students early and signing up other students for consecutive administrations. There appear to have been some errors in entering student information and the lack of common student identifiers continues to make it difficult, if not impossible, to track results for a given student across administrations. Some students who were not coded as special education students or English learners were provided testing accommodations or even, in a few cases, modifications. Currently, there is no available documentation of the basis for school decisions about testing accommodations.

Recommendations

A number of recommendations for steps that the Legislature and the Board might take in deferring the CAHSEE requirement were included in the AB 1609 report (Wise et al., May 2003). As described in Chapter 2, the Board has considered and approved a number of

changes to the CAHSEE. These changes are being implemented for the 2004 administrations of the CAHSEE, so there is no time for further consideration at this point. Nonetheless, we do offer four new recommendations for consideration as the CAHSEE moves forward.

Recommendation 1: Restarting the exam with the Class of 2006 provides some opportunities for improvement; however, careful consideration should be given to any changes that are implemented.

The AB 1609 study report (Wise et al., May 2003) included several recommendations for changes that could ensure better alignment of what is tested with what is taught, making it easier for all students to demonstrate adequate mastery of the intended content. At their July 2003 meeting, the Board approved plans to shorten the ELA testing to a single day and reducing cognitive demands for mathematics questions while still assessing the same standards. Changes to the score scale and possibly even the reexamination of test content specifications are also being considered.

Given the opportunity to restart the CAHSEE for the Class of 2006 next year, consideration of such changes is entirely appropriate. An exact equating of scores from new administrations to scores from prior administrations is not necessary, since the prior administrations no longer "count." (All students tested to date are no longer required to pass the CAHSEE.) Nonetheless, the time to implement changes is very short. For example, forms for the 2004 administrations must be printed well ahead of time, so there is no time to develop and field test new questions. In addition, current procedures have worked very well. A careful review will be needed to ensure that proposed alternatives will work equally well.

We are particularly concerned that there be adequate technical review of plans to reduce the testing time for ELA to a single day. Members of the original HSEE Standards Panel that recommended the content to be covered by the test felt strongly about the need for students to demonstrate their ability to write coherently. To what extent will eliminating one of the two essay questions increase errors in classifying students as passing or not passing? What will be the impact of changing the relative weight assigned to writing versus reading and to the writing standards covered by the essays? There is, unfortunately, not time for the Board to seek the advice of another panel of content experts on these matters, but a careful technical review is both feasible and important.

Recommendation 2: The California Department of Education and the State Board of Education should continue to monitor and encourage efforts by districts and schools to implement effective standards-based instruction.

Results from the AB 1609 study (Wise et al., May 2003) indicated that standards-based instruction was widely available in both middle and high schools. High school instruction includes significant new efforts to provide second-chance opportunities for students who did not fully master required skills during initial instruction. The study also found, however, that current instruction was not fully effective in that many students taking the standards-based courses offered still could not pass the CAHSEE. There were indications that instruction was likely to improve for students in high school classes beyond 2004 and 2005. Ensuring that effective instruction is available to all students remains critical to the successful

implementation of the CAHSEE requirements. CDE must monitor further improvements to standards-based instruction and both CDE and the Board should encourage further efforts in this regard. Providing information on exemplary programs to other districts is one example of how such efforts might be encouraged.

Recommendation 3: Professional development for teachers is a significant opportunity for improvement.

Results from the AB 1609 study indicated that many students were taking initial and remedial courses covering the California Academic Content Standards included on the CAHSEE, but were not benefiting fully from these courses. One reason was that the students did not have important prerequisite knowledge or skills. Additional professional development for teachers could help them be more effective in the courses they are already teaching and also could help them identify students needing additional help with prerequisite skills. One particular target of opportunity identified in the AB 1609 study was that a significant number of teachers involved in remedial mathematics had considerable experience with special education students, but less training in mathematics itself.

Recommendation 4: Further consideration of the CAHSEE requirements for special education students is needed, in light of the low passing rates for this group.

In our evaluation activities, we have introduced consideration of special education students that distinguishes those who are able to participate in regular classes and those who cannot. Treating all special education students as a single group may mask solutions that could help those who can to master critical content standards while setting more realistic expectations for students who cannot reasonably be expected to master these standards.

The very low passing rate, particularly in mathematics, for special education students who are African American or Hispanic deserves further investigation. Are these students somehow more severely handicapped? Are there differences in rates or types of diagnoses and treatments? Are there differences in the way African Americans are treated by schools when they have diagnoses similar to other groups? Are these students concentrated in less effective schools? How can we best understand and remediate these discrepancies?

Collection of more specific information on special education and EL students may facilitate interpretation of CAHSEE results for these groups. The National Assessment of Educational Progress (NAEP), for example, surveys schools regarding each student designated as special education or ELL—asking whether the student is receiving instruction in the regular curriculum at his designated grade level, the severity of the student's disability, etc. Were CAHSEE to collect similar information, a clearer picture of student progress on California state standards may emerge.

Overall, the CAHSEE requirement continues to have a significant impact on instruction and student achievement. Much work remains to be done in helping all students meet the standards for high school graduation that have been established. CDE and the Board face continuing challenges in implementing the CAHSEE requirement.

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